

level generalization as well as a group level generalization. This is called the nested generalization. Item level generalization handles the varying number of items within each group whereas group level generalization handles the varying number of groups in the table.

Figure 15 illustrate a seventh generalizer example for generalizing multilevel nested generalization with any combinations in accordance with the invention. In particular, a piece of content 290 may include multilevel nested groups as shown in Figure 15. The selection of content and the generalized content is not shown for this example, but can be inferred from the above examples. It is also possible to generalize any structure, and nest generalization an unlimited number of times. For example, a group structure is generalized which contains two groups, an atomic and a generalized group as children. One group of the two contains two atomics, while the other contains a group which contains a generalized atomic and a normal atomic. The generalized group contains a generalized group which contains two atomics.

While the foregoing has been with reference to a particular embodiment of the invention, it will be appreciated by those skilled in the art that changes in this embodiment may be made without departing from the principles and spirit of the invention.